REMARKS

Please reconsider the claims in the application in view of the remarks below.

Claim Rejection – 35 U.S.C. §103

Claims 1, 2, 12-15, 25, 26 and 33 stand rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over U.S. Patent No. 6,405,315 ("Burns") in view of U.S. Patent No. 6,959,384 ("Serret-Avila"). The Office Action rejected claims 3, 7-8, 10, 11, 20, 21, 23, 24, 27, 29-32 under 35 U.S.C. §103(a) as allegedly being unpatentable over Burns in view of Serret-Avila and further in view of U.S. Patent No. 6,931,543 ("Pang"), in view of U.S. Patent No 5,124,117 ("Tatebayashi"). Claims 4, 17 were rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Burns and Serret-Avila in view of U.S. Patent No. 5,608,801 ("Aiello"). Of the pending claims, claims 1, 14, 25 and 33 are independent.

In responding to the applicant's previous arguments that Burns and Serret-Avila do not disclose or suggest storing integrity tree data structure at the client and that the root data structure is not written out to the storage device, the Examiner cites Serret-Avila's Col. 8, lines 46-69 and Col. 14, lines 59-64 as allegedly disclosing those elements. Serret-Avila as understood by applicant discloses a receiver authenticating the stream data that is sent from the sender and received at the receiver. Serret-Avila's sender encodes the stream data, then sends the encoded data and the corresponding signature or check values to the receiver. Serret-Avila's receiver receives the data and signature or check values to decode and authenticate the data. Serret-Avila thus as understood by applicant discloses exchanging of the signature or check values between the sender and receiver. Whenever Serret-Avila methodology sends the encoded data, the signature or check values are also sent together with the encoded data. A receiver that receives the encoded data and the signature or check values verifies using the received signature or check

values the authenticity of the encoded data. In another words, Serret-Avila's encoded data and the signature (or check) values travel together. Unlike the Examiner's interpretation, Serret-Avila does not disclose or suggest that its signature or check values are kept only with the sender that encodes the data while the encoded data is sent to another device.

In Response to Arguments on page 2 of the Office Action, the Examiner also alleges, "Applicant is referring to the alternative embodiment where the check values are transmitted (and/or transmission). Applicant has chosen to ignore the very clear fact that Serret-Avila specifically discloses that the check values can be stored without transmission." Contrarily, applicant has not ignored that Serret-Avila's statement in Col. 8, lines 46-69 and Col. 14, lines 59-64 that the check values are "saved for later use and/or transmission." Rather, applicant is averring that even though Serret-Avila saves for later use, that later use is for transmission with the encoded data. If Serret-Avila's check value is not transmitted with the encoded data, it would defeat the whole purpose of Serret-Avila that discloses the method for an encoder to send the encoded data and the check value to a decoder that receives the encoded data together with the check value for performing the authenticity check. Thus, Serret-Avila's method would not work if only the encoded data was sent without the check value, i.e., the check value is kept with the sender only.

It is also not clear what alternative embodiments the Examiner's referring to because as understood by applicant, all of Serret-Avila's embodiments describe sending encoded data with the check value. For example, one embodiment that refers to the encoding and exchange of the encoded data between the sender and the receiver described with reference to Figs. 3-8 explicitly discloses, "To transfer data block 400 to a recipient 204, encoding system 202 first sends $S(H(C_1))$ 424, the sub-block to which $S(H(C_1))$ 424 corresponds (i.e., P_1 425), and check value

$H(C_2)$ 421. Encoding system 202 then continues to send successive sub-blocks, P_i, and check values, $H(C_{i+1})$--moving left to right in FIG. 4--until the entire file has been transmitted." Col. 10, lines 16-27 explicitly describe how the received block of data is used to calculate check values and compared to the received check values for authenticating. Another embodiment described with reference to Fig. 9, et seq. and that refers to a process for encoding data in a manner designed to facilitate efficient and secure content navigation also requires that the encoded data be sent along with the check value to a user. That is, Col. 15, lines 7-10 explicitly require that "the user first obtains the content file and its corresponding signature and hash tree... the user's system may receive these data from network 203 or a disc 280 inserted into disc drive 258." Thus, even in this embodiment, the user's system must receive both the data and the relevant check value in order for the Avila-Serret's authentication method to work.

The Examiner further alleges that applicant's assertion that Avila-Serret's method would not work if its check values were only kept with the sender is "wholly unsupported by any evidence." Again, contrarily, applicant has painstakingly explained why Avila-Serret's method would not work. That is, Serret-Avila's method is to convey the encoded data together with the check values for the receiver to authenticate the data received from the sender. A person of ordinary skill in the art from reading Serret-Avila would clearly understand that Serret-Avila's method would not work without sending the corresponding check value together with the encoded data to the receiver. Otherwise, how would Serret-Avila perform its authentication?

On the other hand, independent claims 1, 14, 25 and 33 recite, "data blocks are written out to the network-attached storage device, ... a root data structure for protecting integrity of all content written to said storage device, ... wherein the root structure is not written out to the storage device."

For at least the above reasons, Burns and Serret-Avila even if combined fail to disclose or suggest every element claimed in independent claims 1, 14, 25 and 33, and the Examiner has failed to make a prima facie case of obviousness. Applicants believe that independent claims 1, 14, 25 and 33, and their respective dependent claims at least by virtue of their dependency are not obvious over Burns and Serret-Avila.

With respect to the dependent claims rejected also in view of the rest of the references, because those references fail to disclose or suggest what Burns and Serret-Avila lack as explained above with respect to independent claims, those dependent claims also are believed to be unobvious over the cited references.

In view of the foregoing, this application is now believed to be in condition for allowance, and a Notice of Allowance is respectfully requested. If the Examiner believes a telephone conference might expedite prosecution of this case, applicant respectfully requests that the Examiner call applicant's attorney at (516) 742-4343.

Respectfully submitted,

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